

FEBRUARY, 1986

## DEPARTMENT OF HIGHWAYS' EMPLOYEES' NEWSLETTER

### BATON PASSED AT GVW

Jesse Munro of Helena was recently selected to be Administrator of the Gross Vehicle Weight (GVW) Division at the Department of Highways. Munro takes over for Don Copley, who retired December 31st.

Registration, licensing and fee and tax collection on trucks and interstate fleets will all be part of Munro's responsibility, as well as the operation of weigh stations and roving enforcement programs. The GVW Division has over 100 employees and operates 27 weigh stations across Montana.

Munro steps in at a busy time. Applications are already coming in for truck permit and license renewals. In addition, he will be putting a great deal of time in over the next several months preparing the GVW Division's budget for the '88-'89 biennium.

The new administrator was raised and educated in Helena and graduated from Carroll College. He has been an Audit Supervisor and, more recently, Personal Property Bureau Chief at the Montana Department of Revenue.

Munro is no stranger to GVW. He was involved with the Interstate Licensing Program as part of his former job at Revenue. He and Copley have worked together since 1981.

Munro is married to Karen (Scott) Munro, formerly of Red Lodge and Missoula. She is Administrator of the Centralized Services Division, Department of Administration. They have two children.

Meanwhile, Don Copley is looking forward to retirement. "I've got a few projects I'll be involved with," Copley said. "A little work — a little play."



**NEW ADMINISTRATOR**—Jesse Munro now heads the GVW Division. (see story, left)

### CADD COMES TO MONTANA

The Montana Department of Highways will take a big step into the computer age in the next several weeks.

Final contract negotiations are nearly complete for the purchase of the Computer Aided Design and Drafting (CADD) system. Testing will begin very soon at the factory in Huntsville, Alabama. The CADD system is expected to be on-site in Helena in early February.

Montana will be the 28th state highway agency to acquire the CADD system.

Purchase of the new CADD system was authorized by the 1985 Montana Legislature. Negotiations and planning have been underway since the fall of 1983. Soon, nearly \$1 million worth of sophisticated computer equipment and software will take a place among the drafting tables, maps and plans that are the heart of the Department of Highways.

CADD enables designing, drafting, mapping and plotting of highways, bridges and other structures electronically. Designs may be stored indefinitely in CADD's memory and used for reference in the future.

If an engineer wants to design a single-span bridge, for example, he can call up one of the bridges stored in CADD, make the necessary modifications and design a new bridge in a relatively short time.

Half of a bridge can be designed and using that information, CADD will create the other half with the same dimensions almost instantly. Other capabilities of CADD include dynamic three-dimensional display and color graphics.

Engineers and draftsmen using CADD can perform work three times faster than it would take to do it manually, according to proponents. In addition, more than one person can work on a project simultaneously.

One exciting feature is CADD's ability to solve "what if. . ." questions in a matter of moments.

(Continued on back page)

### WOLD IS FASTEST

Final results from the 7th Annual National Transportation Week Running Challenge show Kyle Wold of Kalispell had the fastest time in the nation.

Wold's time of 32:04 for the 10 Km (6.3 mile) run bested second place Jerry Kauffman of New Jersey. Kauffman's time was 32:49.

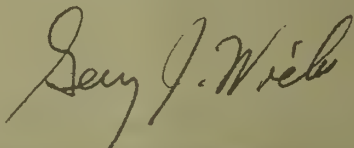
The winning team in the competition among State Departments of Transportation was Washington State. Their 5 fastest runners turned in times totally 175:26. Montana placed 7th with a 190:54 total.

(continued on page 2)

*In 1985 we demonstrated once again that by working together we can accomplish a lot. Thank you for your part in this effort.*

*It's always encouraging to see the positive attitude so many of you have as you go about the business of serving the public. In my book, it's this positive attitude that makes all the difference. I'm looking forward to an even better year for the Department of Highways in 1986.*

*Best Wishes for the New Year,*



*Gary J. Wicks, Director*

## BIG CONSTRUCTION

Montana was the subject of a cover story and photo in the October *Pacific Builder and Engineer* magazine.

"Highway Mining in Montana" is the title of the story, with a cover photo titled 'Bringing on the Big Guns in Montana'.

"This is no ordinary highway job," writes Charles Gordon, a freelance photographer and writer from Seattle, Washington, about the massive I-15 construction project. "Washington (Construction Company of Missoula) will excavate more than 3.5 million cubic yards of material in 14 cuts. In one cut alone, the contractor put in 600,000 cubic yards of fill."

"The most impressive operation on the job," according to Gordon, "was the excavation on the northern portion where Caterpillar D10 and Komatsu 455A dozers were feeding a Komatsu PC1500 (one of only six of these giants in the United States), which was loading the 120-ton unit rig trucks. The PC 1500's 11 cubic yard bucket permitted it to keep up with seven haulers with little or no delay."

For comparison, consider that a cubic yard of material is about the size of an office desk and weighs about 3,000 pounds.



**BIG GUNS**—Excavation equipment like this used on the Basin—Elk Park project is rare. The Komatsu PC1500 loads a 120-ton unit rig truck while a Komatsu 455A dozer feeds the pile. Each of these machines are in the "world's largest" class. The tires on the unit rig truck stand about 11 feet tall.

(continued from front)

Tim Cail of Helena placed in the top 25 runners. Jim Beck and Norm Rognlie of Helena placed among the winners in the Masters category.

Another aspect of the Running Challenge is participation. Alaska took that award with a 27.5% turnout of their Headquarters personnel. Turnout for Montana was over 10%.

## COMFORT AND SAVINGS

Comfort and savings are the goals of a program that will reach nearly all of the Department's 650 buildings over the next ten months.

Are you faced with another big power bill this month? House drafty? Consider the Department of Highways, where heat and lights cost about \$1.5 million last year. Consider shops and garages where doors are nearly as big as the walls and thousands of cubic feet of heated air rush into the great outdoors each time they're opened.

George Swartz, Chief of the Maintenance Bureau, has been working with a consultant, Jon Krigger of Target Energy Savers, Inc. and twelve department employees who were trained as "energy auditors" to identify where energy can be saved. Their findings were analyzed and recommendations were made that target where the most cost-effective results can be expected.

Specifications were written and now Swartz is planning the installation of nearly a half-million dollars in energy saving materials, as well as nearly \$300,000 worth of energy-saving retrofit work at headquarters buildings in Butte and Billings. "With a big effort between now and next September, the majority of the work will be done," Swartz said.

Funding comes from the Long Range Building Program and possibly through a grant from the Department of Natural Resources and Conservation.

Silicone caulking and weatherstripping, new heaters, paddle fans, thermostats and timers, window coverings, and insulation will all be installed by maintenance workers. About 180 new garage doors (with an R-factor of 13) will be installed by contractors.

Swartz said a lot of work is already being done, with good results, and he's confident that the Department will meet or exceed the goal of 15% energy savings.

According to Swartz, one important side-benefit of the project is the updated building and materials specifications that will now be a part of any new construction project. The specifications were developed directly as a result of the project.

In addition, Swartz said, the Department is now planning building needs for 5 and 10 years into the future, instead of looking ahead to only the next two years.



## GRAVELEY CERTIFIED

Rosemary Graveley of Helena is the 25th Montana volunteer to become certified in the National Credit Union Volunteer Achievement Program.

Graveley works in the Materials Bureau at Helena headquarters.

In order to earn certification, Graveley completed a series of six short courses and tests. The instruction included policy, planning, financial reports and risk management for Credit Union Board of Directors members.

## BRIDGE BUILDING

The Bridge Bureau and Bureau Chief Norm Rognlie had quite a year and their work is receiving wide attention.

Most notable is the Beaver Creek Bridge Project near Thompson Falls in Sanders County.

The project involved constructing a three-span bridge the size of a football field on temporary abutments, then sliding it onto its permanent abutments.

Traffic was turned on to the new structure in its temporary position while the old bridge was removed and a new, permanent substructure built. In this way, the new superstructure served as a temporary detour bridge. When the substructure was complete, the new bridge was slid into place.

Moving a bridge sideways is somewhat common, but usually involves small, single-span bridges. Such a grand scale effort is almost unheard of, according to Don Harriott, Administrator of the Engineering Division. The Bridge Bureau's handling of the project "made it seem easy to those of us who watched from the sidelines," according to Harriott.

The 900 ton bridge was moved into place with only slight delays after one of the rollers failed. A heavier replacement roller was flown in from the west coast and the project was completed the following day.

Other "feathers" in the Bridge "cap" are the Two Medicine Bridge in Glacier County and the MonDak Bridge near Fairview Montana, both completed this past year.

The Two Medicine Bridge involved use of a temporary Bailey Bridge to carry traffic over the top of the old bridge while it was being rebuilt. Cost savings on the project was in the millions.

The MonDak Bridge was built in North Dakota, by North Dakota, but required heavy involvement in the design process and shared funding between Montana and North Dakota. Chief Rognlie coordinated a ribbon-cutting ceremony with North Dakota officials that drew literally thousands of residents from both states. The new bridge provides a much-needed link between the rural communities along the states shared border.



***LOOKIN' UP—Things are lookin' up at the Highway according to many employees. One of the more tangible examples is the move to bigger and better maintenance equipment, like this Ford "Louisville" truck.***

***About four-dozen new maintenance trucks are in the field this year. They are designed for larger capacity and less down-time. In addition, much more attention has been given to operator comfort, since the cab of these trucks becomes a "second home" for many employees when the snow flies.***

***This particular truck is designed for plowing and sanding mountain passes. It is equipped with a 300-horse diesel engine, 13-speed transmission and locking differential.***

## IN-STATE AND OUT-OF-STATE WINTER ROAD REPORTS

ARIZONA	(602) 262-8261 (Phoenix) or 255-827
COLORADO	(303) 639-1234 (I-25 & East—Denver) or (303) 639-1111 (Denver & West)
MONTANA	(406) 444-6339 (800) 332-6170
NEVADA	(702) 793-1313 (Carson City)
NEW MEXICO	(505) 983-0452 or 983-0120
OREGON	(503) 388-6388 (Bend), (503) 686-7900 (Eugene), (503) 474-3133 (Grants Pass), (503) 883-2275 (Klamath Falls), (503) 776-6200 (Medford), (503) 889-6468 (Ontario), (503) 238-8400 (Portland), or (503) 378-6532 (Salem)
UTAH	(801) 964-6000 (Salt Lake City)
WASHINGTON	(509) 456-6333 (Spokane)
WYOMING	(307) 237-8411 (Casper), (307) 635-9966 (Cheyenne), (307) 875-9966 (Green River)



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## CADD COMES TO MONTANA (continued from front)

Of course, sophisticated computer systems bring their share of headaches, too. CADD comes with its own "doctor" or "surgeon"—a full-time, on-site engineer who will do nothing but work to keep the CADD system operating.

CADD will result in a reduction of 15 FTE. To achieve this reduction, vacancies from attrition or transfer will not be filled. Cross-training may be required to prepare other affected employees for different positions. Layoff will be considered only as a last resort.

CADD will first be installed at Helena Headquarters in Location and Road Design, Traffic, Hydraulics, Bridge and Photogrammetry. After 1988, expansion is planned into Rural Planning (Mapping), Project Analysis, Right of Way and selected field offices.

It is hoped CADD will lead to better coordination, improved designs, faster modification to design and plans, less dependency on consultants and increased productivity or efficiency savings. Employees have already begun honing their computer skills in anticipation of working with a new partner at "the Highway."

**BUCKET OF GOO**—"Foamix" is made by pumping water into hot asphalt, causing the asphalt to foam to several times its original volume. Temperature of this bucket of goo exceeded 330 degrees when the photo was taken.

A story on Montana's experience with the world's largest Foamix project will appear in the March Interchange.



## BUTTE HAD A BUSY SEASON

by Karen Ham

Interstate 15 north of Butte was closed to all traffic from July 8 through August 27. This is the first time a major route has been closed this length of time for construction. There were many calls to the Butte office, but very few complaints.

The projects are now 85% complete and 2 lanes will be open to traffic during the winter.

The contracts for this 14.7 mile section of I-15 total \$31,000,000 which is 40% of the total construction under contract in the district and averages over \$2,000,000 per mile.

Maintenance was also busy. Our forces report overlays at Montana Avenue, Helena and four miles from Jefferson City to Alhambra. Chip seals were done on U.S. 12 Avon to Elliston and McDonald Pass and eight miles east of Townsend.

Our retirees include John Hren, Maintenance; John Colvin, Construction; Jim White, R/W; George Stockwell, construction; Joe Matkovic, Maintenance; "Swede" Jensen, Bozeman Maintenance. Joe Vigus has taken the duties Jon Colvin vacated and in Bozeman, Willis Griswold replaced "Swede". We congratulate them all.

## POWDER RIVER BRIDGE DEDICATED

by Patty Zimmerman

The Powder River Commercial Club sponsored a dedication ceremony commemorating the completion of the bridge over the Big Powder River on Saturday, October 26. A large crowd gathered at the site near Broadus for the dedication of the \$2 million-plus structure.

Don Heidel of the Powder River Historical Society had a special interest in the dedication. Heidel was a member of the High School band when the old bridge was dedicated forty-six years ago.

Speaking at the dedication were Jay Randall, District Engineer; Dave Gardner, Commercial Club President; Klayton Rogge, Mayor of Broadus and other dignitaries.

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Edited and Produced by Jo Schmitz and Dennis Unsworth, Information Unit. Phone 444-6200, Helena.

## RETIREMENTS

Employees who have recently retired with over 30 years of service with the Department include: Robert Ray Lamb, Miles City, 39 years, 11 months; Steve Vulle, Thompson Falls, 37 years, 11 months; William J. Hauck, Billings, 36 years, 6 months; Allan J. Dutton, Hamilton, 34 years, 5 months; Clinton D. Crider, Helena, 34 years; Thomas Hammerbacker, Conrad, 33 years, 10 months; Luther E. Lucero, Missoula, 30 years, 10 months; and Jerry Knapp, Great Falls, 30 years, 2 months. Recent retirees with 20-30 years of service include: Benjamin C. Miller, Missoula, 29 years, 9 months; Lester W. Herbold, Stanford, 28 years, 8 months; Douglas E. Pappas, Butte, 27 years, 7 months; Carl J. Hussein, Butte, 27 years, 5 months; Leroy Stewart, Helena, 26 years, 8 months; John Hren, Dillon, 26 years, 7 months; Elden D. Gamache, Kalispell, 26 years, 5 months; Orville D. Tiensvold, Helena, 25 years, 9 months; Warren A. Kiss, Helena, 24 years, 1 month; Ted J. Sokolowski, Kalispell, 22 years, 5 months; Frank J. Stolle, Rapid City, SD, 20 years, 11 months; and Wesley S. Plann, Glendive, 20 years, 7 months. Other employees who have recently retired are Betty J. Foley, Helena, 17 years, 8 months; Bernard H. Schmitt, Helena, 15 years, 7 months; and James X. White, Butte, 11 years, 4 months.